

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of January 30, 2002 has been received and contents carefully reviewed.

Applicant gratefully thanks the Examiner for the indicated allowability of claims 2, 7, 8, 13, and 19 if rewritten in independent form including all of the limitations of the base claims and any intervening claims. However, Applicant elects not to amend these claims at this time.

The Examiner objected to Figures 1 and 2 as not be labeled as Prior Art. Applicants submit a Request for Examiner's Approval of Drawing Changes in response to this objection.

The Examiner rejected claims 1 and 12 under 35 USC § 102(e) as being anticipated by Lee (US Patent No. 6,226,057). Applicant respectfully traverses this rejection.

Independent claim 1, as amended, recites a combination of elements including a pixel electrode disposed in the pixel region, the pixel electrode overlapping one of the first and the second regions of the first data line, the pixel electrode overlapping one of the first and second regions of the second data line. Independent claim 12, as amended, recites a combination of elements including forming a pixel electrode in the pixel region to overlap one of the first and the second regions of the first data line, and to overlap one of the first and second regions of the second data line. None of the cited references teaches or suggests each and every element of these claims.

Lee discloses a pixel electrode 26 overlapping data line 22. In Figure 2A, it appears that the pixel electrode 26n overlaps first and second regions of the first data line 22n-1 and a first region of the second data line 22n. In column 8, Lee states that the first pixel electrodes

26n-1, 26n+1, 26n+3 have to be patterned such that they are overlapped with the source bus lines 22n-1, 22n, 22n+1, 22n+2 at left and right sides along a selected row, preferably to fully cover the source bus lines 22n-1, 22n, 22n+1, 22n+2. The second pixel electrodes 26n, 26n+2 have to be patterned such that they are overlapped with the source bus lines 22n-1, 22n, 22n+1, 22n+2 and the first pixel electrodes 26n-1, 26n+1, 26n+3 adjacent thereto in a selected row direction. Accordingly, it appears that the adjacent pixel electrodes overlap each other in Lee. In contrast, in the present application, a pixel electrode overlaps one of the first and the second regions of the first data line, and overlaps one of the first and second regions of the second data line.

Applicant submits that claims 1 and 12 are allowable over the cited references.

Applicant respectfully requests that the rejection under 35 USC § 102(e) be withdrawn.

The Examiner rejected claims 4-6, 10, 11, 15-17, 21, and 22 under 35 USC § 103(a) as being unpatentable over Lee (US Patent No. 6,226,057) and in view of Takemura (US Patent No. 5,757,444). The Examiner rejected claims 3, 9, 14, 18, and 20 under 35 USC § 103(a) as being unpatentable over Lee (US Patent No. 6,226,057) and Takemura (US Patent No. 5,757,444). Applicant respectfully traverses these rejections.

As discussed above, Lee does not teach or suggest a pixel electrode overlapping one of the first and the second regions of the first data line, and overlapping one of the first and second regions of the second data line. Takemura fails to cure the deficiencies of Lee. None of the cited references, singly or in combination, teaches or suggests these features.

Applicant submits that claims 2-11, and 13-21 are allowable over the cited references.

Applicant respectfully requests that the rejections under 35 USC § 103(a) be withdrawn.

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Minor changes have been made to the specification to correct informalities in the translation. No new matter has been added.

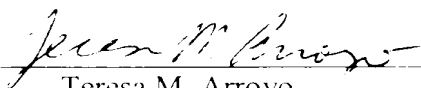
Applicant believes the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone call would further the prosecution of this application, the Examiner is invited to call the undersigned at (202) 624-1200. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Respectfully submitted,

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MARKED UP VERSION SHOWING AMENDED SPECIFICATION PARAGRAPHS

Paragraph beginning on page 3, line 23:

According to one aspect of the present invention, the pixel electrode overlaps the first and the second data lines by whole width of the data lines and by a substantially half length of the data lines. The pixel electrode is a reflective pixel electrode. Preferably, the first and the second regions of the data lines are approximately the same in size. The pixel electrode extends over the first region of the first [date] data line and extends over the second region of the second data line.

Paragraph beginning on page 5, line 1:

First data line 50 and second data lines 52 are extending along in a matrix column direction. In a matrix row direction, first and second gate lines 56 and 54 are shown. Two data lines 50 and 52 and two gate lines 56 and 54 define a pixel region. The data line 50 (52) is connected to a source electrode 60. The gate line 56 (52) is connected to a gate electrode 58. A reflective pixel electrode 64 electrically contacts drain electrode [8] 62 through a contact hole 63 on drain electrode 62.

MARKED UP VERSION SHOWING AMENDED CLAIMS

1. (Amended) A liquid crystal display device comprising:

a substrate;

first and second gate lines formed on the substrate;

first and second data lines intersecting the first and second gate lines so as to define a pixel region, wherein each one of the first and second data lines has longitudinally separated first and second regions;

an insulating film covering the first and second gate lines and the first and the second data lines;

a pixel electrode disposed in the pixel region, the pixel electrode [and] overlapping [at least] one of the first and the second regions of the first data line, [and second data lines:] the pixel electrode overlapping one of the first and second regions of the second data line; and

a switching element disposed in the pixel region and connected between the second gate line and the pixel electrode.

12. (Amended) A method of manufacturing a liquid crystal display device, comprising the steps of:

providing a substrate;

forming first and second gate lines formed on the substrate;

forming first and second data lines intersecting the first and second gate lines so as to define a pixel region, wherein each one of the first and second data lines has longitudinally separated first and second regions;

forming an insulating film covering the first and second gate lines and the first and the second data lines;

forming a switching element disposed in the pixel region and connected between the second gate line and the pixel electrode; and

forming a pixel electrode in the pixel region to overlap [at least] one of the first and the second regions of the first data line, [and second data lines;] and to overlap one of the first and second regions of the second data line.